

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0124150; AI 155791; PER20070002** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. THE APPLICANT IS:** Millennium Holdings, LLC
Greystone Golf and Country Club STP #2
9214 Greystone Drive
Denham Springs, LA 70726
- II. PREPARED BY:** Eura DeHart
- DATE PREPARED:** July 18, 2008
- III. PERMIT ACTION:** Issue LPDES permit LA0124150, AI 155791; PER20070002
- LPDES application received: June 27, 2007
- EPA has not retained enforcement authority.

IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from a privately owned treatment works serving the Greystone Golf & Country Club Community Development (5th and subsequent residential filings).
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located on the west side of Wax Road, north of Pete's Highway (La. Hwy. 16) in Denham Springs, Livingston Parish.
- D. The treatment facility consists of three (3) parallel 33,000 GPD extended aeration sewage treatment plants. The effluents from the sewage treatment plants are commingled prior to the chlorine contact chamber.

E. Outfall 001

Discharge Location: Latitude 30° 26' 44" North
Longitude 90° 55' 41" West

Description: treated sanitary wastewater

Expected Flow: 400 of homes x 400 gallons/day/home = 0.0772 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

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V. RECEIVING WATERS:

The discharge is from the sewage treatment plants into the detention pond, thence into Millers Canal, thence into Gray's Creek in segment 040304 of the Lake Pontchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 040304 of the Lake Pontchartrain Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 040304	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 040304 of the Lake Pontchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040304 of the Lake Pontchartrain Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the gulf sturgeon, which is listed as a threatened/endangered species. The proposed permit is for a sanitary sewage treatment facility (not covered under a General Permit) and is located in a sensitive area. As set forth in the Memorandum of Understanding between the LDEQ and the FWS and in accordance with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ), this draft permit has been submitted to the FWS for review. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

VII. HISTORIC SITES:

The discharge will be from a new facility. LDEQ has consulted with the State Historic Preservation Officer (SHPO) in a letter dated June 28, 2007 to determine whether construction-related activities could potentially affect sites or properties on or eligible for listing on the National Register of Historic Places. SHPO's response, dated July 27, 2007 stated that the facility as proposed will have no potential effects.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

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Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Eura DeHart
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:**Final Effluent Limits:****OUTFALL 001**

According to the Request for Preliminary Determination dated December 13, 2007 submitted for the facility, effluent reduction and reclamation will be accomplished through the use of the onsite detention pond and the withdrawal of water for irrigation purposes. The discharge of approximately 77,000 as proposed would be made into the onsite detention pond which ultimately overflows into Millers Canal, thence into Gray's Creek. The onsite detention pond's retention capacity is approximately 11,132,000 gallons. Routing the discharge into the onsite detention pond will eliminate the direct flow from the treatment plant into waters of the state during dry water (critical) conditions. Overflow from the onsite detention pond into the Gray's Creek watershed would only be expected during a rain event (non-critical conditions). Water from the onsite detention pond will additionally be utilized as an irrigation source for the golf course. Based on actual irrigation usage from the previous several years, it was determined that an average of 18,000 gpd (peak 35,000 gpd) will be pumped from the onsite detention pond for irrigation purposes. Given the design capacity of the treatment facility and the average withdrawal of irrigation water, the average retention time of the onsite detention pond is approximately 134 days.

Subsegment 040304, Gray's Creek, is listed on LDEQ's Final 2006 303(d) List as impaired for organic enrichment/low DO, pathogen indicators, nitrate/nitrite, sulfates, TDS, and phosphorus. In accordance with LAC 33:IX.2317, LPDES permits may not be issued to a new source or new discharge in a subsegment which does not meet applicable water quality standards if the discharge has the reasonable potential to cause or contribute to the violation of water quality standards. A TMDL is to be developed for the Gray's Creek watershed in order to address existing water quality impairments. This TMDL is due to be issued by March 31, 2012. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Lake Pontchartrain Basin, those suspected causes for impairment which are not directly attributed to the sanitary wastewater point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit.

Organic Enrichment/Low DO

To protect against the potential for oxygen consuming pollutants that could cause instream DO problems, and for the discharges of organic materials at levels exceeding state water quality standards, CBOD₅ limitations have been established in the permit.

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Pathogen Indicators

To protect the receiving waterbody against high levels of pathogenic organisms, fecal coliform limitations have been established in the permit.

Nitrate/Nitrite, Phosphorus, and TDS

LDEQ's position on nutrients, as supported by the ruling in *Sierra Club v. Givens*, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. LAC 33:IX.2707.D.1.f.iii allows the establishment of effluent limitations based on an indicator parameter for the pollutant of concern. LDEQ's consistent approach to controlling nutrients in similar discharges where the WQMP does not otherwise require specific nutrient limitations is achieved by limiting the discharge of oxygen-demanding substances through a CBOD₅ limitation. Compliance with the CBOD₅ limitation as the indicator parameter will result in the control of nutrients from the discharge sufficient to attain and maintain the applicable water quality standard. Effluent monitoring of the indicator parameter as conducted by the permittee in accordance with Part I of the permit in addition to LDEQ's ambient water quality monitoring program will allow for further evaluation by the Department to determine the effectiveness of the limitation. The reopener clause located in Part II of the final permit allows the Department to modify or revoke and reissue the permit if the limitations as set on the indicator parameter are shown to no longer attain and maintain applicable water quality standards.

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	5 mg/l	7.5 mg/l	Limits are set through BPJ in order to address water quality impairments of the receiving stream and in accordance with January 22, 2003 Memo from Aguillard to Levy
TSS	5 mg/l	7.5 mg/l	Limits are set through BPJ in order to address water quality impairments of the receiving stream and in accordance with January 22, 2003 Memo from Aguillard to Levy
Ammonia-Nitrogen	2 mg/l	4 mg/l	Limits are set through BPJ in order to address water quality impairments of the receiving stream and in accordance with January 22, 2003 Memo from Aguillard to Levy
Dissolved Oxygen	5.0 mg/l	N/A	Limits are set through BPJ in order to address water quality impairments of the receiving stream and in accordance with January 22, 2003 Memo from Aguillard to Levy

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass

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limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

**This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

No previous permits.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

A review of the files indicates no inspections were performed for this facility.

B) Compliance and/or Administrative Orders

A review of the files indicates there are no enforcement actions administered against this facility.

C) DMR Review

There are no DMRs on file for this new facility.

XII. ADDITIONAL INFORMATION:

In accordance with LAC 33:IX.2707.C, this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

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- a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b) Controls any pollutant not limited in the permit; or
- c) Requires reassessment due to change in 303(d) status of waterbody; or
- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body. The LDEQ and USEPA will be conducting TMDLs in the Lake Pontchartrain Basin Subsegment 040304. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between **0.02** and **0.1** MGD.

Effluent CharacteristicsMonitoring Requirements

	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	1/week	Measure
BOD ₅	1/month	Grab
Total Suspended Solids	1/month	Grab
Ammonia-Nitrogen	1/month	Grab
Dissolved Oxygen	1/month	Grab
Fecal Coliform Bacteria	1/month	Grab
pH	1/month	Grab

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a new permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

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Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Millennium Holdings, LLC, Greystone Golf and Country Club STP #2, June 27, 2007.